

IDS Form PTO/SB/08: Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/553,226
				Filing Date	February 6, 2006
				First Named Inventor	Evy LUNDGREN-AKERLUND
				Art Unit	1644
				Examiner Name	Maher M. Haddad
Sheet	1	of	2	Attorney Docket Number	10142.0005

U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS					
Examiner Initials	Cite No. ¹	Document Number	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
MH		US 5,686,059	11-11-1997	Goetinck et al.	
↓		US 5,843,436	12-1-1998	Lolke et al.	
↓		US 5,853,987	12-29-1998	Guo et al.	
↓		US 7,029,858	04-18-2006	Lundgren-Akerlund	
MH		US 2006/0178503	08-10-2006	Lundgren-Akerlund	

Note: Submission of copies of U.S. Patents and published U.S. Patent Applications is not required.

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
MH		EP 0330506	08-30-1989	Hemler et al.		
↓		JP-2001-354699	12-25-2001	Yuichi et al.		Abstract
↓		WO 92/19647	11-12-1992	Tamura et al.		
↓		WO 94/25487	11-10-1994	Ingber et al.		
↓		WO 97/31653	09-04-1997	Mercurio et al.		
↓		WO 99/51639	10-14-1999	Lundgren-Akerlund		
↓		WO 02/072030	11-19-2002	Arnaout et al.		
↓		WO 03/101497	12-11-2003	Gullberg et al.		
MH		WO 03/106492	12-24-2003	Lundgren-Akerlund		

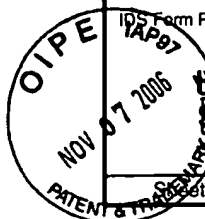
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation ⁶
MH		LEHNERT et al., "The integrin alpha10 subunit: expression pattern, partial gene structure, and chromosomal localization," Cytogenet. Cell Genet., Vol. 87, pages 238-244, 1999.	
↓		CAMPER et al., "Isolation, cloning, and sequence analysis of the integrin subunit alpha10, a beta1-associated collagen binding integrin expressed on chondrocytes," J. Biol. Chem., Vol. 273, pages 20383-20389, August 7, 1998.	
↓		HILLIER et al., Genebank Accession No. N72734, 1996.	
↓		TAKADA et al., "Molecular cloning and expression of the cDNA for alpha 3 subunit of human alpha 3 beta 1 (VLA-3), an integrin receptor for fibronectin, laminin, and collagen," J. Cell Biol., Vol. 115, pages 257-266, October 1991.	
↓		TAKADA et al., "The primary structure of the alpha 4 subunit of VLA-4: homology to other integrins and a possible cell-cell adhesion function," EMBO J., Vol. 8, pages 1361-1368, May, 1989.	
↓		CAMPER et al., "Integrin alpha2beta1 is a receptor for the cartilage matrix protein chondroadherin," J. Cell Biol., Vol. 138, pages 1159-1167, September 8, 1997.	
↓		HOLMVALL et al., "Chondrocyte and chondrosarcoma cell integrins with affinity for collagen type II and their response to mechanical stress," Exp. Cell Res., Vol. 221, pages 496-503, 1995.	
MH		YEDNOCK et al., "Alpha 4 beta 1 integrin-dependent cell adhesion is regulated by a low affinity receptor pool that is conformationally responsive to ligand," J. Biol. Chem., Vol. 270, pages 28740-28750, December,	

IDS Form PTO/SB/08: Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				<i>Application Number</i>	10/553,226
				<i>Filing Date</i>	February 6, 2006
				<i>First Named Inventor</i>	Evy LUNDGREN-AKERLUND
				<i>Art Unit</i>	1644
				<i>Examiner Name</i>	Maher M. Haddad
Sheet	2	of	2	<i>Attorney Docket Number</i>	10142.0005

NON PATENT LITERATURE DOCUMENTS			
MH		1995.	
		International Search Report for Application No. PCT/SE99/00544, July 30, 1999.	
		International Preliminary Examination Report for Application No. PCT/SE99/00544, June 15, 2000.	
		International Search Report for Application No. PCT/SE2004/000580, July 14, 2004.	
↓		Written Opinion of the International Searching Authority for Application No. PCT/SE2004/000580, July 14, 2004.	
MH		International Preliminary Report on Patentability for Application No. PCT/SE2004/000580, July 15, 2005.	

Examiner Signature	/Maher Haddad/	Date Considered	11/18/2006
-----------------------	----------------	--------------------	------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



US Form PTO/SB/08: Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/553,226
Filing Date	February 6, 2006
First Named Inventor	Evy LUNDGREN-AKERLUND
Art Unit	1644
Examiner Name	Maher M. Haddad
Attorney Docket Number	10142.0005

U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS

Examiner Initials	Cite No. ¹	Document Number	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
MH		US 4,816,397	03-28-1989	Boss et al.	
		US 4,816,567	03-28-1989	Cabilly et al.	
		US 4,946,778	08-07-1990	Ladner et al.	
		US 5,225,539	07-06-1993	Winter	
		US 5,514,548	05-07-1996	Krebber et al.	
		US 5,565,332	10-15-1996	Hoogenboom et al.	
		US 5,585,089	12-17-1996	Queen et al.	
		US 5,698,761	12-16-1997	Pohl et al.	
		US 5,698,762	12-16-1997	Dauerman	
		US 2003/0039966	02-27-2003	Hering et al.	
MH		US 2006/0123495	06-08-2006	Gullberg et al.	

Note: Submission of copies of U.S. Patents and published U.S. Patent Applications is not required.

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
MH		EP 0120694	10-03-1984	Boss et al.		
MH		EP 0125023	11-14-1984	Cabilly et al.		
MH		EP 0239400	09-30-1987	Winter		
MH		WO 86/01533	03-13-1986	Neuberger et al.		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation ⁶
MH		ARMULIK, "Studies on the transmembrane signaling of beta1 integrins," Acta Universitatis Upsaliensis. Comprehensive summaries of Uppsala dissertations from the faculty of medicine 963, pages 1-92, 2000.	
		BARRY et al., "Biotinylated gene therapy vectors," Expert Opin Biol Ther., Vol. 3, pages 925-940, September, 2003.	
		BIRD et al., "Single-chain antigen-binding proteins," Science, Vol. 242, pages 423-426, October 21, 1988.	
		BOUDREAU et al., "Extracellular matrix and integrin signalling: the shape of things to come," Biochem J., Vol. 339, pages 481-488, May 1, 1999.	
		BOULIANNE et al., "Production of functional chimaeric mouse/human antibody," Nature, Vol. 312, pages 643-646, December 13, 1984.	
		BRITTBERG et al., "Treatment of deep cartilage defects in the knee with autologous chondrocyte transplantation," N Engl J Med., Vol. 331, pages 889-895, October 6, 1994.	
		BRITTBERG, "Autologous chondrocyte transplantation," Clin Orthop Relat Res., Vol. 367 Suppl, pages S147-S155, October, 1999.	
MH		BRUDER et al., "Growth kinetics, self-renewal, and the osteogenic potential of purified human mesenchymal stem cells during extensive subcultivation and following cryopreservation," J Cell Biochem., Vol. 64, pages 278-294, February, 1995.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

2

of

3

Application Number

10/553,226

Filing Date

February 6, 2006

First Named Inventor

Evy LUNDGREN-AKERLUND

Art Unit

1644

Examiner Name

Maher M. Haddad

Attorney Docket Number

10142.0005

NON PATENT LITERATURE DOCUMENTS

MH		CAMPER et al., "Distribution of the collagen-binding integrin alpha10beta1 during mouse development," Cell Tissue Res., Vol. 306, pages 107-116, October, 2001.	
		CAPLAN et al., "Mesenchymal stem cells: building blocks for molecular medicine in the 21st century," Trends Mol Med., Vol. 7, pages 259-264, June, 2001.	
		CONRAD et al., "GATA transcription in a small rhodamine 123(low)CD34(+) subpopulation of a peripheral blood-derived CD34(-)CD105(+) mesenchymal cell line," Exp Hematol., Vol. 30, pages 887-895, August, 2002.	
		DAUGHERTY et al., "Polymerase chain reaction facilitates the cloning, CDR-grafting, and rapid expression of a murine monoclonal antibody directed against the CD18 component of leukocyte integrins," Nucleic Acids Res., Vol. 19, pages 2471-2476, May 11, 1991.	
		DAVID et al., "Protein iodination with solid state lactoperoxidase," Biochemistry, Vol. 13, pages 1014-1021, February 26, 1974.	
		EMSLEY et al., "Structural basis of collagen recognition by integrin alpha2beta1," Cell, Vol. 101, pages 47-56, March 31, 2000.	
		FONG et al., "Ongoing normal pregnancy after transfer of zona-free blastocysts: implications for embryo transfer in the human," Hum Reprod., Vol. 12, pages 557-560, March, 1997.	
		FONG et al., "Comparison of human blastulation rates and total cell number in sequential culture media with and without co-culture," Hum Reprod., Vol. 14, pages 774-781, March, 1998.	
		FUNARO et al., "Monoclonal antibodies in clinical applications," J Biol Regul Homeost Agents, Vol. 10, pages 72-82, October, 1996.	
		GOUGH et al., "Rapid and quantitative preparation of cytoplasmic RNA from small numbers of cells," Anal Biochem., Vol. 173, pages 93-95, August 15, 1988.	
		GULLBERG et al., "Collagen-binding I domain integrins--what do they do?," Prog Histochem Cytochem., Vol. 37, pages 3-54, 2002.	
		HAUKANES et al., "Application of magnetic beads in bioassays," Biotechnology, Vol. 11, pages 60-63, January, 1993.	
		HEINO, "The collagen receptor integrins have distinct ligand recognition and signaling functions," Matrix Biol., Vol. 19, pages 319-323, August, 2000.	
		HERING, "Regulation of chondrocyte gene expression," Front Biosci., Vol. 4, pages 743-761, October 15, 1999.	
		JARRIN et al., "Sequencing of antibodies," Methods Mol Biol., Vol. 96, pages 21-28, 1999.	
		JOBANPUTRA et al., "Effectiveness of autologous chondrocyte transplantation for hyaline cartilage defects in knees: a rapid and systematic review," Health Technol Assess., Vol. 5, pages 1-57, 2001.	
		JOHNSTONE et al., "Mesenchymal cell transfer for articular cartilage repair," Expert Opin Biol Ther., Vol. 1, pages 915-921, November, 2001.	
		JONES et al., "Replacing the complementarity-determining regions in a human antibody with those from a mouse," Nature, Vol. 321, pages 522-525, May 29, 1986.	
		JORGENSEN et al., "Stem cells for repair of cartilage and bone: the next challenge in osteoarthritis and rheumatoid arthritis," Ann Rheum Dis., Vol. 60, pages 305-309, April, 2001.	
		KAMMANN et al., "Rapid insertional mutagenesis of DNA by polymerase chain reaction (PCR)," Nucleic Acids Res., Vol. 17, pages 5404, July 11, 1989.	
		KIRSCHSTEIN et al., "Stem cells: scientific progress and future research directions," National Institutes of Health Report, June, 2001.	
		LEWIS et al., "Immunoglobulin complementarity-determining region grafting by recombinant polymerase chain reaction to generate humanised monoclonal antibodies," Gene, Vol. 101, pages 297-302, May 30, 1991.	
		LUYTEN et al., "Skeletal tissue engineering: opportunities and challenges," Best Pract Res Clin Rheumatol., Vol. 15, pages 759-770, December, 2001.	
		MORRISON et al., "Chimeric human antibody molecules: mouse antigen-binding domains with human constant region domains," Proc Natl Acad Sci U S A., Vol. 81, pages 6851-6855, November, 1984.	
		NEUBERGER et al., "A hapten-specific chimaeric IgE antibody with human physiological effector function," Nature, Vol. 314, pages 268-270, March 21, 1985.	
		NEWMAN et al., "Primatization of recombinant antibodies for immunotherapy of human diseases: a macaque/human chimeric antibody against human CD4," Biotechnology, Vol. 10, pages 1455-1460, November, 1992.	
MH		NISHIMURA et al., "Chondroprogenitor cells of synovial tissue," Arthritis Rheum., Vol. 42, pages 2631-2637, December, 1999.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet	3	of	3	Application Number	10/553,226
-------	---	----	---	--------------------	------------

Filing Date	February 6, 2006
First Named Inventor	Evy LUNDGREN-AKERLUND
Art Unit	1644
Examiner Name	Maher M. Haddad
Attorney Docket Number	10142.0005

NON PATENT LITERATURE DOCUMENTS

MH	NYGREN, "Conjugation of horseradish peroxidase to Fab fragments with different homobifunctional and heterobifunctional cross-linking reagents. A comparative study," J Histochem Cytochem., Vol. 30, pages 407-412, May, 1982.
	PAIN et al., "Preparation of protein A-peroxidase monoconjugate using a heterobifunctional reagent, and its use in enzyme immunoassays," J Immunol Methods, Vol. 40, pages 219-230, 1981.
	PARROTT et al., "Metabolically biotinylated adenovirus for cell targeting, ligand screening, and vector purification," Mol Ther., Vol. 8, pages 688-700, October, 2003.
	PERA et al., "Human embryonic stem cells," J Cell Sci., Vol. 113, pages 5-10, January, 2000.
	PITTENGER et al., "Multilineage potential of adult human mesenchymal stem cells," Science, Vol. 284, pages 143-147, April 2, 1999.
	PLOW et al., "Ligand binding to integrins," J Biol Chem., Vol. 275, pages 21785-21788, July 21, 2000.
	QUIRICI et al., "Isolation of bone marrow mesenchymal stem cells by anti-nerve growth factor receptor antibodies," Exp Hematol., Vol. 30, pages 783-791, July, 2002.
	REYES et al., "Purification and ex vivo expansion of postnatal human marrow mesodermal progenitor cells," Blood, Vol. 98, pages 2615-2625, November 1, 2001.
	RIECHMANN et al., "Reshaping human antibodies for therapy," Nature, Vol. 332, pages 323-327, March 24, 1988.
	SATO et al., "Reshaping a human antibody to inhibit the interleukin 6-dependent tumor cell growth," Cancer Res., Vol. 53, pages 851-856, February 15, 1993.
	SCOUTEN, "A survey of enzyme coupling techniques," Methods Enzymol., Vol. 135, pages 30-65, 1987.
	SCUTT et al., "A semiautomated, 96-well plate assay for collagen synthesis," Anal Biochem., Vol. 203, pages 290-294, June, 1992.
	SOLTER et al., "Immunosurgery of mouse blastocyst," Proc Natl Acad Sci U S A., Vol. 72, pages 5099-5102, December, 1975.
	TALLHEDEN et al., "Phenotypic plasticity of human articular chondrocytes," J Bone Joint Surg Am., Vol. 85-A, Suppl. 2, pages 93-100, 2003.
	TALTS et al., "Integrin gene targeting," Methods Mol Biol., Vol. 129, pages 153-187, 1999.
	TULLA et al., "Selective binding of collagen subtypes by integrin alpha 1I, alpha 2I, and alpha 10I domains," J Biol Chem., Vol. 276, pages 48206-48212, December 21, 2001.
	VAUGHAN et al., "Human antibodies by design," Nat Biotechnol., Vol. 16, pages 535-539, June, 1998.
	VELLING et al., "cDNA cloning and chromosomal localization of human alpha(11) integrin. A collagen-binding, I domain-containing, beta(1)-associated integrin alpha-chain present in muscle tissues," J Biol Chem., Vol. 274, pages 25735-25742, September 3, 1999.
	VERHOEYEN et al., "Reshaping human antibodies: grafting an antilysozyme activity," Science, Vol. 239, pages 1534-1536, March 25, 1988.
	WOESSNER, "Determination of hydroxyproline in connective tissues," The Methodology of Connective Tissue Research, 1 st Ed., Joynton-Bruvvers Ltd, Publisher, 1976.
MH	YOO et al., "The chondrogenic potential of human bone-marrow-derived mesenchymal progenitor cells," J Bone Joint Surg Am., Vol. 80-A, pages 1745-1757, December, 1998.

Examiner Signature	/Maher Haddad/	Date Considered	11/18/2006
--------------------	----------------	-----------------	------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.